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Higher Levels of Childhood Intelligence Predict Increased Support for Economic Conservatism in Adulthood

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Abstract

A number of studies have reported that higher intelligence is associated with socially liberal attitudes. Less clear, however, is whether this link extends to economic attitudes, although there are indications that higher intelligence is associated with economically conservative attitudes. Here in two large, longitudinal UK cohorts (each N > 7100) we assessed whether childhood intelligence predicted adulthood economic attitudes. In both cohorts we saw that higher levels of childhood (age 10-11) intelligence were related to higher levels of economic conservatism in adulthood (age 30-33). These effects were robust to the inclusion of potential confounders (sex, parental social class, childhood conduct problems). Moreover, this pathway was at least partially mediated by educational attainment and achieved social class/income. These findings confirm the importance of intelligence as an important phenotype for understanding the origins of economic attitudes. Implications for self-interest and rational-interest theories are discussed.

Keywords: economic conservatism; intelligence; longitudinal; education; social class

Intelligence predicts many important life outcomes, including educational attainment (Deary et al., 2005) and physical health (Gottfredson & Deary, 2004). Recent research has extended this footprint and highlighted that socio-political attitudes are also associated with intelligence. Specific associations include positive links to social liberalism (Deary et al., 2008a; Schoon et al., 2010: both using the same cohort data as reported in the current study), and negative links to racial prejudice (Hodson & Busseri, 2012; Onraet et al., 2015), authoritarianism (Choma & Hanoch, 2017; Heaven, Ciarrochi, & Leeson, 2011; Onraet et al., 2015), and social dominance orientation (Choma & Hanoch, 2011; Heaven et al., 2011). Higher levels of intelligence are also associated with being a regular voter and being more politically involved (Deary et al., 2008b). Of note, there have been some indications that both lower and higher levels of intelligence are associated with political liberalism – that is, a U-shaped relationship (Solon, 2014), although subsequent work suggests that such an association is likely only present for a small sub-set of political attitude items (Carl, 2015a). In general, then, these results suggest that higher intelligence leads to a system of attitudes variously described as liberal, enlightened, or left-wing/progressive (Deary et al., 2008a).

Political attitudes, however, are multi-dimensional (Feldman & Johnston, 2014), and the few studies relating intelligence to economic attitudes suggest divergence from a simple identification of cognitive ability with liberal or left-wing values. For instance, using US data from the General Social Survey, Carl (2014) reported that scores on a brief multiple-choice vocabulary test were positively, rather than negatively, associated with economic conservatism. This association was subsequently replicated in data from the American National Election Survey (Carl, 2015b).

Comparable results have been reported outside the USA. In two samples of Swedish males, higher adult general intelligence was associated with increased economic conservatism (Oskarsson et al, 2015; Mollerstrom & Seim, 2014). And research with the two

UK datasets used in the current study – the British Cohort Study 1970 and National Child Development Study 1958, respectively – showed that a composite construct aggregating trust in politicians/government (e.g. "Politicians are in politics for their own benefit" (reverse-scored)) and economic conservatism items (e.g. "There is one law for the rich and one for the poor" (reverse-scored)) was positively associated with childhood intelligence. These results, however, need to be interpreted cautiously in light of the reported link between childhood intelligence and higher levels of generalized trust in adulthood in these datasets (Sturgis, Read, & Allum, 2010). As such, it is conceivable that the trust in politicians/government items drive the observed associations.

The Current Study

Collectively, then, these findings indicate that higher levels of intelligence are predictive of economic conservatism. However, a number of issues remain. Firstly, studies to date have often had to rely on sub-optimal measures of intelligence, such as brief-form vocabulary tests (Carl, 2014; Carl, 2015b). And where intelligence has been measured more appropriately the sample population has been restricted to males (Mollerstrom & Seim, 2014; Oskarsson et al, 2015). Secondly, there is little work addressing possible mechanisms underpinning links between intelligence and economic conservatism. Some work suggests that much of the variance in socio-political attitudes is mediated by self-interest. For instance, Weeden and Kurzban (2014) argue that higher levels of human capital – a blend of cognitive ability and educational attainment – causes individuals to prefer economic policies that limit redistribution of the wealth they have accumulated (or might plausibly expect to accumulate in time). Consistent with this model, Mollerstrom and Seim (2014) reported that the association between intelligence and economic conservatism was at least partly accounted for

by personal income. However, their sample was relatively modest in size (N=273) and was restricted to Swedish males.

With the above in mind, we set out to address a number of factors which in turn would provide us with a more powerful test of the hypothesis that cognitive ability is positively associated with economically conservative attitudes, and the pathway(s) through which this link emerges. We used data from two large, longitudinal cohorts from the UK – the British Cohort Study 1970 (BCS1970) and the National Child Development Study 1958 (NCDS1958). These two cohorts provide a well-powered (each N>7100) opportunity to address these issues using reliable and valid instruments, and with intelligence assessed in childhood, prior to the accumulation of educational differences and attitude development (thus reducing the likelihood of reverse causation), and with the opportunity to include potential confounders (i.e. sex, parental social class, childhood conduct problems: Deary et al., 2008a; Lewis, 2018) in the models. In short, we sought to answer the following questions. Firstly, does childhood intelligence predict adult economic conservatism in the UK? Secondly, if present, is this association mediated by educational attainment and achieved social class, as predicted by the self-interest model?

Methods

Participants

The data used in this analysis are drawn from two longitudinal cohort studies in the UK: 1) the British Cohort Study 1970 (BCS1970; Elliott & Shepherd, 2006; https://discover.ukdataservice.ac.uk/series/?sn=200001), and 2) the National Child Development Study 1958 (NCDS1958; Power & Elliott, 2006; https://discover.ukdataservice.ac.uk/series/?sn=2000032).

The BCS1970 is a longitudinal study examining 17,196 people born in England, Scotland, and Wales during one week in 1970. The current study examined data taken from sweeps of participants at age 5 and 10, collected in 1975 and 1980 by the Institute of Child Health at the University of Bristol, and who were also sampled at age 30, collected in 2000 by the National Centre for Social Research, managed by the Centre for Longitudinal Studies. 9773 individuals had complete data for the intelligence at age 10. Of these individuals 7104 provided complete data for the economic conservatism measure and 6736 also had complete data for the covariate measures. The demographics of this sample was: sex - 51% female; ethnicity - 93% reported European (UK or other) ethnicity; the rest of the sample consisted of West-Indian, Indian/Pakistani, "others", and those who did not state their ethnicity.

The NCDS1958 is a longitudinal study examining 17,500 people born in England, Scotland, and Wales during one week in 1958. This study examined data taken from sweeps of participants at age 7 and 11, collected in 1965 and 1969 by the National Children's Bureau, and participants at age 33, collected in 2000 by the Social Statistics Research Unit at City, University of London. 9869 individuals had complete data for the intelligence at age 11. Of these individuals 8961 provided complete data for the economic conservatism measure and 6456 also had complete data for the covariate measures. The demographics of this sample was: sex - 49% male; ethnicity - 96% reported European (UK or other) ethnicity; the rest of the sample consisted of African, Indian/Pakistani, and "others".

Measure

Economic Conservatism

Economic conservatism was assessed identically in both the *BCS1970 and NCDS1958*, with six items (e.g. "Government should redistribute income" (reverse-scored); "Ordinary people don't get a fair share of the nation's wealth (reverse-scored)"; "Big

business benefits owners at the expense of workers" (reverse-scored); Cronbach's α = .68 and .79 in the two samples respectively (see Cheng et al., 2012). Higher scores reflected higher levels of economic conservatism.

Parental Social class

BCS1970: Parental social class was determined from the father's occupation (or mother's occupation if no father was present) using six categories derived from the United Kingdom Registrar General's Classification of Occupations: professional, managerial/technical, skilled non-manual, skilled manual, semi-skilled, or unskilled. Higher scores reflected higher parental social class. The median score was 3.

NCDS1958: Parental social class was determined from the father's occupation (or mother's occupation if no father was present) using five categories derived from the United Kingdom Registrar General's Classification of Occupations: professional, managerial/technical, skilled non-manual or manual, semi-skilled, or unskilled. Higher scores reflected higher parental social class. The median score was 3.

Intelligence

BCS1970: Childhood general intelligence was assessed using a modified version of the British Ability Scales (Elliot, Murray, & Pearson, 1978), adapted to facilitate administration by teachers. Four sub-scales were used assessing verbal ability (word definitions, word similarities) and nonverbal ability (digit recall, matrix reasoning). Higher scores reflected higher levels of intelligence in each of the domains. Word Definitions: the teacher articulated a series of words in turn. The child was asked about the meaning of each word. Word Similarities: the teacher spoke 3 words (e.g. "orange", "banana", and "strawberry"). The child was asked to name another word consistent with the theme (e.g. a fruit). Recall of Digits: the teacher read out strings of digits at half-second intervals. The child was asked to repeat them. Matrices: the teacher asked the child to fill in the missing part

of a pattern. Children were tested individually in all sub-tests. These four domains were used as indicators of the general intelligence latent factor in subsequent modelling. The first principal component accounted for 57% of the variance across the tests.

NCDS1958: Childhood general intelligence was measured using a general ability test that was group administered at school when the participant was 11 years of age. The test is comprised of 40 verbal and 40 non-verbal items. Higher scores reflected higher levels of intelligence in each of the domains. Children were tested individually by teachers, who recorded the answers for the tests. Verbal items: the children were presented with a set of three words that were linked in some way (e.g. logically, semantically, phonologically) and asked to identify (from a choice of five independent words) the word that best fitted the set. Non-verbal tasks: the same basic protocol was used as with the verbal items; but in this test shapes or symbols were used. As only two indicators of cognitive ability were available in the NCDS1958 an aggregate score was used as a measure of general intelligence in subsequent modelling. These two test scores were highly correlated: $r=.80$, $p < .001$.

Educational Attainment

BCS1970: At age 30 participants were asked about their highest academic or vocational qualification. These qualifications were divided into 7 categories, reflecting increasing attainment: no qualifications, CSE grades 2-5/GCSE grade D-G (national examinations normally taken at the minimum school leaving age of 16), O levels/GCSE grades A-C, A levels (national examinations normally taken at 18 years old), higher education diploma, degree (and equivalent), and higher degree. Higher scores reflected higher levels of educational attainment. The median score was 2.

NCDS1958: At age 33 participants were asked about their highest academic or vocational qualification. These qualifications were divided into 6 categories, reflecting increasing attainment: no qualifications, CSE grades 2-5, O levels, A levels, professional

qualifications, and degree level or higher. Higher scores reflected higher levels of educational attainment. The median score was 2.

Achieved Social Class

BCS1970: At age 30 participants were asked about their current social class using six categories derived from the United Kingdom Registrar General's Classification of Occupations: 1) unskilled, 2) semi-skilled, 3) skilled manual, 4) skilled non-manual, 5) managerial/technical, or 6) professional. The median score was 4.

NCDS1958: At age 33 participants were asked about their current social class using six categories as detailed above for the BCS1970. The median score was 4.

Childhood Conduct Problems

BCS1970: When participants were age 5 their parents provided assessment of their temperament using a 19-item version of the Rutter Behaviour Scale (Rutter et al., 1970). Previous factor analysis work in this sample (Lewis, 2018) has shown that these items are well-described by latent factors of anxiety, conduct problems/aggression, and hyperactivity. Here we operationalized conduct problems as the mean score of the 6 items that defined the conduct problems latent factor.

NCDS1958: When participants were age 7 their parents provided assessment of their temperament using a 14-item version of the Rutter Behavior Scale (Rutter et al., 1970). As above, previous factor analysis work in this sample (Lewis, 2018) has shown that these items are well-described by latent factors of anxiety, conduct problems/aggression, and hyperactivity. Here we operationalized conduct problems as the mean score of the 4 items that defined the conduct problems latent factor.

Results

Descriptive statistics and inter-correlation for the study variables from both cohorts are presented in Tables 1 and 2. (Note, inter-correlations between childhood intelligence and other available socio-political measures in these cohorts are detailed in the Supplementary Materials). In line with recent work indicating that intelligence and economic conservatism may have a U-shaped relationship (Solon, 2014; but also see Carl, 2015a) we explored this possibility by examining conservatism means at each decile of intelligence. Neither cohort showed evidence for a curvilinear association. Indeed, both showed a clear monotonic increase in economic conservatism across all deciles (see Supplementary Table 1).

----- Insert Tables 1 and 2 here -----

We used a structural equation modelling approach (with full information maximum likelihood) for all analyses with general intelligence modelled as a latent factor in the BCS1970 data (the NCDS1958 only provided two indicators and so we aggregated these into a single score: see Figure 1).

We first assessed whether childhood intelligence was predictive of adult economic conservatism. In both cohorts we observed a significant positive association – higher levels of childhood general intelligence were predictive of higher levels of adult economic conservatism – $\beta = .20$ [CI95%: .17, .23] and $\beta = .26$ [CI95%: .24, .28], in the BCS1970 and NCDS1958, respectively. These parameters were largely unchanged by the inclusion of sex, parental social class, and childhood conduct problems as covariates: $\beta = .15$ [CI95%: .12, .18] and $\beta = .22$ [CI95%: .20, .24], in the BCS1970 and NCDS1958, respectively.

We next examined whether this positive link between childhood intelligence and adult economic conservatism was mediated by educational attainment and achieved social class. In the BCS1970 significant mediation was observed for each of the three pathways: intelligence

→ educational attainment → economic conservatism (.03 [CI95%: .02, .04]); intelligence → educational attainment → social class → economic conservatism (.03 [CI95%: .03, .03]); and intelligence → social class → economic conservatism (.03 [CI95%: .02, .04]). A direct effect of general intelligence was still evident, however: β = .07 [CI95%: .04, .10]. See Figure 1 and Supplementary Table 2 for full details of the mediation model.

In the NCDS1958 significant mediation was observed for each of the three pathways: intelligence → educational attainment → economic conservatism (.02 [CI95%: .01, .03]); intelligence → educational attainment → social class → economic conservatism (.05 [CI95%: .04, .06]); and intelligence → social class → economic conservatism (.03 [CI95%: .02, .04]). Again, however, a direct effect of general intelligence was observed: β = .14 [CI95%: .12, .16]. See Figure 2 and Supplementary Table 2 for full details of the mediation model.

Subsidiary analyses

As a sensitivity check we also examined whether the pattern of mediation observed above was still evident if self-reported income was used instead of achieved social class. To this end, we re-ran our models but here replacing achieved social class with self-reported income. Results from these models were highly similar to those reported above.

In the BCS1970 significant mediation was observed for each of the three pathways: intelligence → educational attainment → economic conservatism (.04 [CI95%: .03, .05]); intelligence → educational attainment → income → economic conservatism (.02 [CI95%: .02, .02]); and intelligence → income → economic conservatism (.01 [CI95%: .01, .01]). A direct effect of general intelligence was still evident, however: β = .09 [CI95%: .06, .12].

In the NCDS1958 significant mediation was observed for each of the three pathways: intelligence → educational attainment → economic conservatism (.06 [CI95%: .05, .07]); intelligence → educational attainment → income → economic conservatism (.01 [CI95%:

.01, .01]); and intelligence → income → economic conservatism (.01 [CI95%: .01, .01]). Again, however, a direct effect of general intelligence was observed: β = .15 [CI95%: .13, .17]. The full outputs of these models are detailed in Supplementary Figure 3.

In a final analysis we formally examined whether the relationship between childhood intelligence and components of social conservatism (assessed via measures of authoritarianism, gender inequality, and racism: see the Supplementary Materials for full details on measures) were significantly different to the relationship between childhood intelligence and economic conservatism. We used the cocor package (Diedenhofen & Musch, 2015) for R to perform these analyses. In both cohorts these relationships were not equivalent (all Z (Pearson and Filon, 1898) > 14.66, all $p < .001$).

----- Insert Figure 1 here -----

Discussion

Higher levels of intelligence are typically associated with lower levels of social conservatism (Deary et al., 2008a; Hodson & Busseri, 2012; Schoon et al., 2010). In contrast, although less well examined to date, some studies have shown a positive association between intelligence and economic conservatism (Carl, 2014; Carl, 2015b; Mollerstrom & Seim, 2014; Oskarsson et al, 2015). However, these findings have relied on less than ideal measures of intelligence (Carl, 2014; Carl, 2015b) or have been limited to Swedish males (Mollerstrom & Seim, 2014; Oskarsson et al, 2015). Here we used data from two large, longitudinal cohorts of UK adults whose intelligence was assessed when they were children – and thus well before the age where socio-political attitudes develop – and economic conservatism in adulthood, some twenty-five years later.

In both cohorts childhood intelligence was a positive predictor of economic conservatism, and this association was largely unchanged when potential confounders were included in the model (sex, parental social class, and childhood conduct problems). These observations confirm recent work using US and Swedish samples – indeed, the magnitude of the parameter estimates across these studies and ours are highly similar (i.e. r~.25) - and suggest that the link from intelligence to economic conservatism generalizes beyond specific national settings, perhaps reflecting a broader phenomenon (at least in the context of Westernized nations).

Of some interest, the link from childhood intelligence to economic conservatism was at least partially mediated – albeit very modestly – by educational attainment and achieved social class/income. This mediation effect is consistent with predictions from a self-interest model (Weeden & Kurzban, 2014), linking intelligence and education to higher attained social class/income, in turn leading to support for economic policies that allow individuals freedom to accumulate wealth.

In contrast with the mediated effects, it is noteworthy that significant direct effects of intelligence were also observed in both cohorts. A number of processes might account for this link. For example, higher intelligence may lead individuals to prefer conservative economics based on greater awareness or cognitive processing of, for instance, arguments about competition and property rights raising global prosperity. Intelligence may also have a residual association with prospective income, not fully measured by educational attainment and achieved social class (either because of measurement error or because of some other unmeasured factor). Additional studies are thus required to resolve the mechanism(s) of this direct association.

The current study has a number of strengths, most notably large sample sizes, the high quality of the measures, and the assessment of intelligence in childhood thus largely ruling

out concerns of reverse causation. However, several limitations require mentioning. Firstly, the current results may not generalize beyond the UK, although it is notable that we report similar links to those found in US and Swedish samples. It is also important to note that the observed effect sizes are relatively modest: much of the variance in economic attitudes is independent of intelligence. Nonetheless, the effects of intelligence on economic conservatism observed here are comparable to, or in fact exceed, those of more widely-acknowledged predictors of social attitudes, such as sex, social class, and educational attainment. More broadly, complex psychological phenotypes – such as economic conservatism – are almost certainly the product of multiple influences. As such, to gain traction on their etiology will require careful aggregation across multiple studies and samples with appropriate statistical power and representativeness. The current study makes an important contribution in this respect. Finally, while our mediation results are consistent with a self-interest model of economic attitudes it is also possible that more conservative economic beliefs give rise to higher levels of education and achieved social status, perhaps because such beliefs drive achievement-oriented behaviors (at least with regards to financial interests).

In summary, the current study used two large, longitudinal cohorts from the UK to assess the relationship between intelligence and economic conservatism. Intelligence – assessed in childhood – was predictive of adult (age ~ 30 years) economic conservatism in both cohorts. Moreover, these links were at least partially mediated by educational attainment and achieved social class/income, consistent with work arguing that economic attitudes reflect self-interest. These findings contribute to knowledge concerning the etiology of socio-political attitudes and confirm an important role for intelligence.

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Table 1. Descriptive statistics and inter-correlations for all study measures (British Cohort Study 1970)

	Mean (SD)	Intelligence	Economic conservatism	Conduct	Sex	Education	aSC
Intelligence	0.01 (3.01)	-					
Economic conservatism	2.78 (0.60)	.19 [.17,.21]	-				
Conduct	1.37 (0.33)	-.19 [-.21,-.17]	-.11 [-.13,-.09]	-			
Sex	-	-.03 [-.05,-.01]	.08 [.06,.10]	-.17 [-.19,-.16]	-		
Education	-	.45 [.43,.47]	.22 [.20,.24]	-.18 [-.20,-.16]	.03 [.01,.05]	-	
aSC	-	.36 [.34,.38]	.26 [.24,.29]	-.15 [-.17,-.13]	.08 [.06,.11]	.51 [.49,.52]	-
pSC	-	.33 [.31,.35]	.20 [.18,.22]	-.16 [-.17,-.14]	.00 [-.02,.01]	.34 [.32,.36]	.30 [.28,.32]

Note. The range of scores for economic conservatism was from 1 to 5; the range of scores for conduct problems was 1 to 3; aSC = achieved social class; pSC = parental social class.

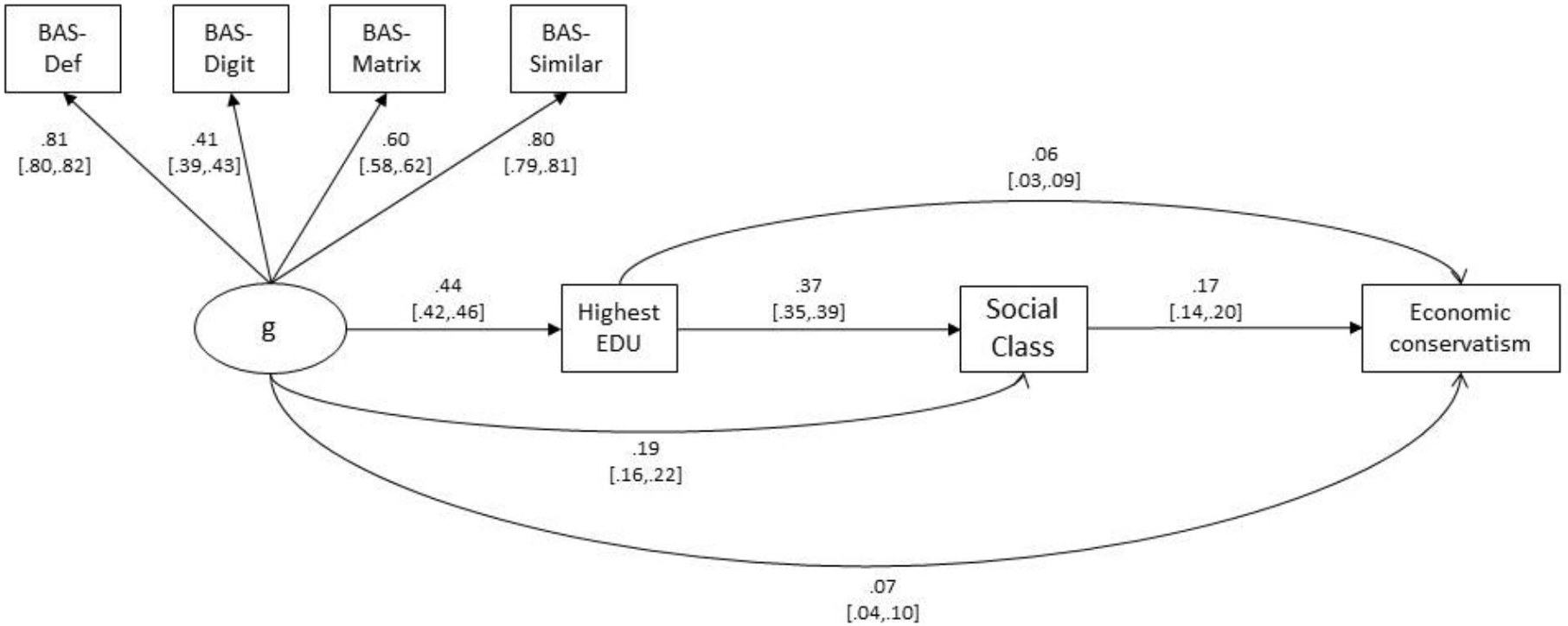
Table 2. Descriptive statistics and inter-correlations for all study measures (National Child Development Study 1958)

	Mean (SD)	Intelligence	Economic conservatism	Conduct	Sex	Education	aSC
Intelligence	44.40 (15.72)	-					
Economic conservatism	2.79 (0.74)	.25 [.23,.27]	-				
Conduct	1.50 (0.37)	-.15 [-.17,-.13]	-.09 [-.11,-.07]	-			
Sex	-	.07 [.05,.09]	.07 [.05,.09]	-.16 [-.18,-.14]	-		
Education	-	.54 [.53,.56]	.23 [.21,.25]	-.14 [-.16,-.12]	-.09 [-.10,-.07]	-	
aSC	-	.39 [.38,.41]	.28 [.26,.30]	-.11 [-.13,-.09]	-.01 [-.03,.01]	.55 [.54,.56]	-
pSC	-	.19 [.17,.21]	.15 [.13,.17]	-.04 [-.07,-.02]	-.02 [-.04,.00]	.24 [.22,.26]	.20 [.17,.22]

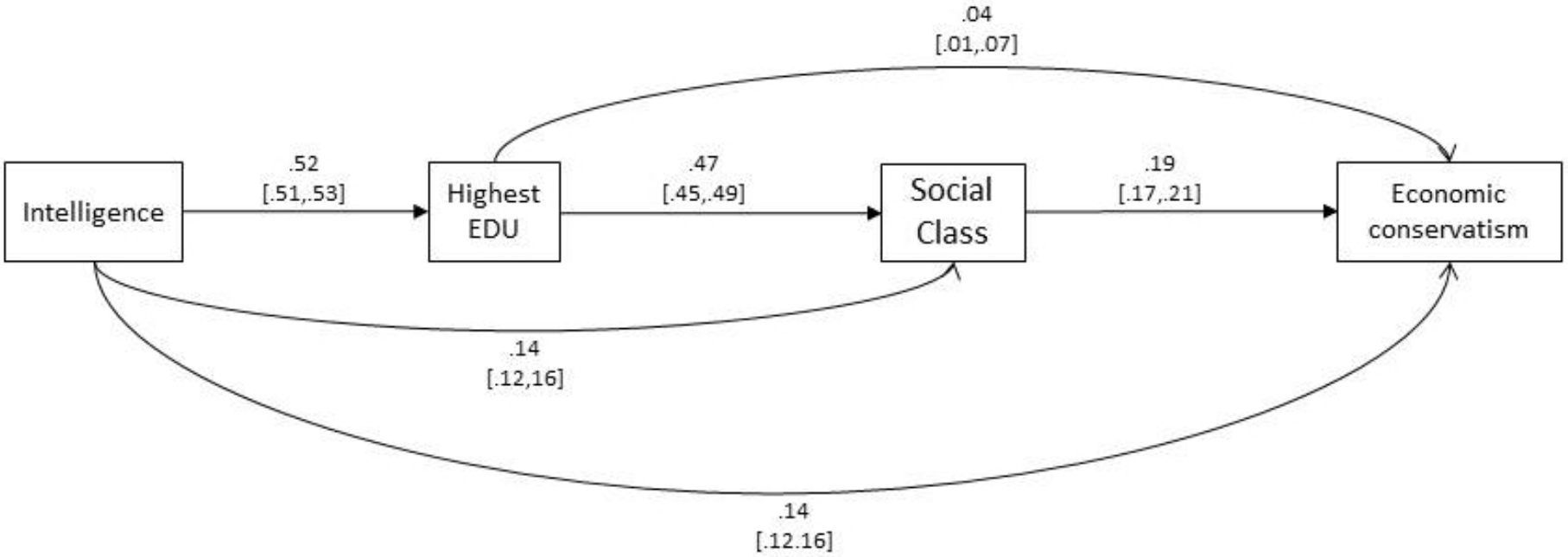
Note. The range of scores for economic conservatism was from 1 to 5; the range of scores for conduct problems was 1 to 3; the range of scores for general cognitive ability was 0 – 80; aSC = achieved social class; pSC = parental social class.

Figure 1. Structural equation/path models for (A) the British Cohort Study 1970 cohort and (B) the National Child Development Study 1958 cohort.

(A)



(B)



Note. Sex, parental social class, and childhood conduct problems were included as covariates in both models but are omitted here for visual clarity (see Supplementary Table 1 for full parameter estimates); full information maximum likelihood was used to estimate parameters; fit statistics for each model are as follows: BCS1970 – CFI = .98, RMSEA = .04, χ^2 (df) = 425.25 (21), p <.001; NCDS1970 – CFI = 1.0, RMSEA = .01, χ^2 (df) = 1.80 (1), p =.18.

Supplementary Table 1. Economic conservatism in the BCS1970 and NCDS1958 by decile group for general intelligence.

	Economic Conservatism	
IQ decile group	BCS1970 Mean (SD)	NCDS1958 Mean (SD)
1	2.54 (0.52)	2.40 (0.64)
2	2.62 (0.55)	2.57 (0.69)
3	2.70 (0.57)	2.69 (0.69)
4	2.73 (0.55)	2.74 (0.70)
5	2.75 (0.59)	2.79 (0.71)
6	2.82 (0.58)	2.85 (0.75)
7	2.87 (0.60)	2.92 (0.72)
8	2.87 (0.62)	2.94 (0.73)
9	2.90 (0.63)	2.99 (0.77)
10	2.92 (0.64)	3.03 (0.73)

Supplementary Table 2. Standardized parameter estimates [CI95%] for the full structural equation models with educational attainment and achieved social class as mediators for economic conservatism in both the BCS1970 and the NCDS1958.

	Cohort	
	BCS1970	**NCDS1958**
g/ChildIntel → BAS-Def	.81 [.80,.82]	-
g/ChildIntel → BAS-Digit	.41 [.39,.43]	-
g/ChildIntel → BAS-Matrix	.60 [.58, .62]	-
g/ChildIntel → BAS-Similar	.80 [.79, 81]	-
Conduct → Education	-.07 [-.09,-.05]	-.08 [-.10,-.06]
Conduct → AchievedSC	-.03 [-.05,-.01]	-.03 [-.05,-.01]
Conduct → Economic conservatism	-.04 [-.06,-.02]	-.04 [-.06,-.02]
ChildIntel ↔ Conduct	-.21 [-.23,-.19]	-.15 [-.17,-.13]
ChildIntel → Education	.44 [.42,.46]	.52 [.51,.53]
ChildIntel → AchievedSC	.19 [.16,.22]	.14 [.12,.16]
ChildIntel → Economic conservatism	.07 [.04,.10]	.14 [.12,.16]
Sex ↔ Conduct	-.17 [-.19,-.15]	-.16 [-.18,-.14]
Sex → ChildIntel	-.08 [-.10,-.06]	.07 [.05,.09]
Sex → Education	.06 [.04,.08]	-.13 [-.15,-.11]
Sex → AchievedSC	.07 [.05,.09]	.00 [-.02,.02]
Sex → Economic conservatism	.07 [.05,.09]	.06 [.04,.08]
ParentSC ↔ Conduct	-.16 [-.18,-.14]	-.05 [-.07,-.03]
ParentSC ↔ ChildIntel	.39 [.37,.41]	.19 [.17,.21]
ParentSC → Education	.17 [.15,.19]	.13 [.11,.15]
ParentSC → AchievedSC	.10 [.08,.12]	.06 [.04,.08]
ParentSC → Economic conservatism	.10 [.08,.12]	.08 [.06,.10]
Education → Economic conservatism	.06 [.03,.09]	.04 [.01,.07]
Education → AchievedSC	.37 [.35,.39]	.47 [.45,.49]
AchievedSC → Economic conservatism	.17 [.15,.19]	.19 [.17,.21]
χ^2 (df), p	425.25 (21), < .001	1.80 (1), .18
CFI	.98	1
RMSEA	.04	.01

Note. Parameter estimates are detailed with CI95% in squared brackets; full information maximum likelihood was used; → = a directional path in the model; ↔ = a correlation in the model; CFI = comparative fit index; RMSEA = root mean squared error of approximation; df = degrees of freedom; SC = social class; g = general factor of intelligence; ChildIntel = childhood intelligence.

Supplementary Table 3. Standardized parameter estimates [CI95%] for the full structural equation models with educational attainment and self-reported income as mediators for economic conservatism in both the BCS1970 and the NCDS1958.

	Cohort	
	BCS1970	**NCDS1958**
g/ChildIntel → BAS-Def	.80 [.78,.82]	-
g/ChildIntel → BAS-Digit	.40 [.38,.42]	-
g/ChildIntel → BAS-Matrix	.59 [.57, .61]	-
g/ChildIntel → BAS-Similar	.79 [.77, 81]	-
Conduct → Education	-.07 [-.09,-.05]	-.08 [-.10,-.06]
Conduct → Income	.00 [-.02,.02]	.00 [-.02,.02]
Conduct → Economic conservatism	-.04 [-.06,-.02]	-.04 [-.06,-.02]
ChildIntel ↔ Conduct	-.19 [-.21,-.17]	-.15 [-.17,-.13]
ChildIntel → Education	.43 [.41,.45]	.52 [.51,.53]
ChildIntel → Income	.08 [.04,.12]	.08 [.06,.10]
ChildIntel → Economic conservatism	.09 [.06,.12]	.15 [.13,.17]
Sex ↔ Conduct	-.18 [-.20,-.16]	-.16 [-.18,-.14]
Sex → ChildIntel	-.09 [-.11,-.07]	.07 [.05,.09]
Sex → Education	.06 [.04,.08]	-.13 [-.15,-.11]
Sex → Income	-.24 [-.26,-.22]	-.30 [-.32,-.28]
Sex → Economic conservatism	.12 [.10,.14]	.10 [.08,.12]
ParentSC ↔ Conduct	-.15 [-.17,-.13]	-.05 [-.07,-.03]
ParentSC ↔ ChildIntel	.37 [.35,.39]	.19 [.17,.21]
ParentSC → Education	.17 [.15,.19]	.13 [.11,.15]
ParentSC → Income	.05 [.03,.07]	.05 [.03,.07]
ParentSC → Economic conservatism	.11 [.09,.13]	.09 [.07,.11]
Education → Economic conservatism	.09 [.07,.11]	.11 [.09,.13]
Education → Income	.21 [.19,.23]	.17 [.15,.19]
Income → Economic conservatism	.16 [.14,.18]	.11 [.09,.13]
χ^2 (df), p	344.90 (21), < .001	1.86 (1), .17
CFI	.98	1
RMSEA	.04	.01

Note. Parameter estimates are detailed with CI95% in squared brackets; full information maximum likelihood was used; → = a directional path in the model; ↔ = a correlation in the model; CFI = comparative fit index; RMSEA = root mean squared error of approximation; df = degrees of freedom; SC = social class; g = general factor of intelligence; ChildIntel = childhood intelligence.; Self-reported Income - In both cohorts participants self-reported their current income over a specified time period (e.g. weekly, monthly, annually). This information was then processed to generate an annual income for each participant. In some cases the income was unrealistically high – for example, one participant reported an annual income of over £35 million. To this end we excluded cases with incomes reported to be over £200,000. This number is relatively arbitrary; however, it excluded relatively few participants and reflects an income at the time of assessment well into the so-called 1% of earners.

Supplementary Table 4. Zero-order associations between childhood intelligence and all of the socio-political variables available in the BCS1970.

	Authoritarianism	Economic conservatism	Gender inequality	Political cynicism	Racism
Authoritarianism	-				
Economic conservatism	-.07	-			
Gender inequality	.18	-.08	-		
Political cynicism	.13	-.35	.07	-	
Racism	.20	-.04	.21	.11	-
Childhood intelligence	-.28	.19	-.06	-.16	-.22

Note. All parameter estimates are $p < .001$.

Supplementary Table 5. Zero-order associations between childhood intelligence and all of the socio-political variables available in the NCDS1958.

	Authoritarianism	Economic conservatism	Gender inequality	Political cynicism	Racism
Authoritarianism	-				
Economic conservatism	.06	-			
Gender inequality	.25	.03	-		
Political cynicism	.16	-.45	.14	-	
Racism	.30	.05	.40	.13	-
Childhood intelligence	-.22	.25	-.18	-.28	-.17

Note. All parameter estimates are $p < .001$.

Socio-political Measures

BCS1970: The five socio-political attitude scales were created in line with recent and comprehensive confirmatory factor analytic work performed with data from these cohorts by Cheng et al. (2012): economic conservatism (6 items; sample item: "Government should redistribute income" (reverse-scored); Cronbach's $\alpha = .68$); political cynicism (3 items; sample item: "People like me have no say in what Government does"; Cronbach's $\alpha = .65$); racism (5 items; sample item: "Would not want a person from other race to be boss"; Cronbach's $\alpha = .83$); authoritarianism (7 items; sample item: "Law breakers should be given stiffer sentences"; Cronbach's $\alpha = .64$); and gender inequality (6 item; sample item: "Men & women should have chance to do same kind of work" (reverse-scored); Cronbach's $\alpha = .66$). Higher scores reflected higher levels of the construct label.

NCDS1958: The same procedure was used to form socio-political attitude scales in the NCDS data. Cronbach's alpha was as follows: economic conservatism (6 items: Cronbach's $\alpha = .79$); political cynicism (4 items: Cronbach's $\alpha = .68$); racism (5 items: Cronbach's $\alpha = .82$); authoritarianism (7 items: Cronbach's $\alpha = .67$); and gender inequality (6 items: Cronbach's $\alpha = .68$). Higher scores reflected higher levels of the construct label.

References

Cheng, H., Bynner, J., Wiggins, R., & Schoon, I. (2012). The measurement and evaluation of social attitudes in two British Cohort Studies. *Social Indicators Research, 107*, 351-371.